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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/019,433	12/31/2001	Takeo Kuroda	M&M-048-USA-PCT	4222
27955	7590	04/27/2005	EXAMINER	
TOWNSEND & BANTA c/o PORTFOLIO IP PO BOX 52050 MINNEAPOLIS, MN 55402			BERMAN, SUSAN W	
			ART UNIT	PAPER NUMBER
			1711	

DATE MAILED: 04/27/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/019,433

Applicant(s)

KURODA ET AL.

Examiner

Susan W. Berman

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 19 January 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1,3,5-8 and 10-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3,5-8 and 10-21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 1105 2 sheets
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

*Response to Amendment/Response to Arguments*

Applicant's arguments for reconsideration filed 01-19-2005 have been considered.

J '969: The rejection of claims 1,3,6-8,10 and 13-21 over JP 63-139969 is withdrawn. It is agreed that JP 63-139969, as shown in the translation, does not teach compositions comprising a compound having hydrolysable silyl groups. The rejection of claim 11 over JP 63-139969 is maintained.

J '825: Applicant's arguments with respect to the rejection of claims over JP 06-080825 are unpersuasive for the following reasons. The data presented in J '825 shows the resulting properties for the same composition fully cured by ultraviolet radiation or by moisture. There is no evidence that the properties obtained immediately after exposure to radiation and then after 24 hour aging at 25°C of the disclosed compositions would be different from the properties set forth in the instant claims. J '825 does not measure conversion of monomers immediately after exposure to radiation. Also it is not clear, with respect to the instant claims what causes the 10 to 70 % conversion of compounds "immediately after exposure" to radiation. Is exposure to radiation stopped after a desired conversion is reached? Is the conversion limited by the components of the composition?

J '248: Applicant argues that J '248 does not disclose a composition having the feature of gradually curing together with low conversion ratio recited in the instant claims. This argument is not persuasive. J '248 teaches that radiation after application increases viscosity and heat resistance and that curing is promoted by moisture-curing with lapse of time. The compositions disclosed by the reference would have been expected to have properties within the ranges set forth in the instant claims since the components of the compositions meet the definitions of the required components set forth in the instant claims. J '248 measures the tensile strength and elongation of the cured compositions. The measurement of conversion of monomers or dynamic shear modulus immediately after radiation exposure disclosed by J '248.

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J'466: Applicant argue that J '466 teaches large amounts of calcium carbonate as filler and thus the feature of gradually curing after irradiation cannot be obtained. This argument is not persuasive because applicant claims a composition, not a method, and thus relies upon the composition for patentability. Compositions disclosed in the prior art comprising components as defined in the instant claims would be expected to also provide the same properties in the absence of evidence to the contrary. It is noted that J '466 teaches several kinds of filler corresponding to applicant's thixotropic agent (see[0070]). J '466 teaches using 0-1000 parts by weight of filler per 100 parts by weight of polymer A. The amount of calcium carbonate in the Examples is 60 parts by weight per 100 parts by weight organic polymer A1-A7. The % by volume of thixotropic agent set forth in the instant claims would be expected to at least overlap the % volume resulting from the parts by weight taught by J '466, in the absence of evidence to the contrary.

EP '049 in view of J '241: Applicant has amended the instant claims to require 15-100 parts by weight of the photopolymerizable compound. J '241 teaches that an amount of photopolymerizable compound exceeding 10 parts by weight results in negative properties. However, applicant's arguments are unpersuasive because EP '049 is relied upon for teaching compositions comprising hydrolysable polymer and photocurable compound and J '241 is relied upon for teaching the use of a photoinitiator with radiation curing in analogous compositions.

### *Claim Rejections - 35 USC § 112*

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1, 3, 5-8,10 and 12-21 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for a tensile shear modulus in the range of  $10^5$  to  $10^7$ , does not

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reasonably provide enablement for a dynamic shear modulus in the range of  $10^5$  to  $10^7$ . The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to practice the invention commensurate in scope with these claims. See page 5, lines 16-21.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1, 3, 5-8, 10 and 12-21 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 1 fails to set forth the total weight upon which the parts by weight are based, therefore the parts by weight of components are not clearly defined. See page 27 of the specification, wherein it is disclosed that the parts by weight are based upon 100 parts by weight of component (A). Component C fails to clearly recite that the polymerizable group is a radiation polymerizable group.

***Claim Rejections - 35 USC § 102 and/or 103***

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim 11 is rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over J 63-13969. J '969 discloses adhesive compositions. The components comprise a compound (A) that contains a hydrolyzable epoxy group and a polymerizable methacrylamido group, thus providing applicant's compound "X". Photocuring agents and photosensitizers are taught, thus providing compound "Y". J '969 teaches initial adhesion or temporary adhesion is carried out using active energy rays and then main adhesion or fixation can be carried out (translation page 6, last paragraph, to page 7, lines 1-2, and Application example 2). With respect to the properties set forth in

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claim 11, the compositions disclosed in the reference would be expected to have properties within the ranges set forth since the components of the compositions disclosed correspond to the components of the compositions set forth in the instant claim and because J '969 teaches partial curing followed by further curing.

Claims 1, 3, 6-8, 10, 11 and 13-21 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over J 06080825 (machine translation from JPO website). See the Abstract, claims and paragraph [0019]. With respect to the properties of the adhesive composition set forth in claim 1, the compositions disclosed by the reference would have been expected to have properties within the ranges set forth in the instant claims since the components of the compositions meet the definitions of the required components set forth in the instant claims.

Claims 1, 3, 6-8, 10, 11 and 13-21 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over J 06-228248 (translation provided by applicant). See the Abstract, claims, and paragraphs [0019] and [0020] to [0022]. J '248 teaches that radiation after application increases viscosity and heat resistance and that curing is promoted by moisture-curing with lapse of time. With respect to the properties of the adhesive composition set forth in claim 1, the compositions disclosed by the reference would have been expected to have properties within the ranges set forth in the instant claims since the components of the compositions meet the definitions of the required components set forth in the instant claims.

Claims 1, 3, 6-8, 10, 11 and 13-21 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over J 08-325466 (machine translation). See the Abstract, claims, and paragraphs [0070] and [0057]-[0059]. With respect to the properties of the adhesive

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composition set forth in claim 1, the compositions disclosed by the reference would have been expected to have properties within the ranges set forth in the instant claims since the components of the compositions meet the definitions of the required components set forth in the instant claims.

With respect to each of the rejections set forth above: The burden is hereby shifted to applicant to establish by effective argument and/or objective evidence that the prior art product(s) or process(es) do not necessarily possess the characteristics of the claimed products or processes. Note In re Fitzgerald, 205 USPQ 594 (CCPA 1980). The reference discloses all the limitations of the claim(s) except a property or function and the examiner cannot determine whether or not the reference inherently possesses properties or functions which anticipate the claimed invention. See MPEP 2112-2112.02. Note In re Spada, 911 F. 2d 705, 709, 15 UPQ2d 1655, 1658 (Fed. Cir. 1990), "When the PTO shows a sound basis for believing that the products of the applicant and the prior art are the same, the applicant has the burden of showing that they are not". Note In re Best, 562 F. 2d 775, 195 USPQ 433 (CCPA 1977). Therefore, the *prima facie* case can be rebutted by evidence showing that the prior art products do not necessarily possess the characteristics of the claimed product.

Claims 1, 3, 5-8 and 10-21 are rejected under 35 U.S.C. § 103(a) as being unpatentable over EP 0035049 in view of J 55-036241. EP '049 discloses compositions comprising an organic polymer having at least one hydrolyzable silicon-containing group and a photocurable substance. The photocurable substances specifically taught are (meth)acrylic monomers or oligomers (pages 2-3). Thixotropic agents may be added (page 4, line 7). Curing agents are taught on page 4, however, photoinitiators for the photocurable substances are not mentioned. J '241 discloses adhesive compositions comprising the same organic polymer having a hydrolyzable silicon-containing group and a photocurable substance. J '241 teaches adding a photosensitizer, such as benzophenone.

It would have been obvious to one skilled in the art at the time of the invention to include a photosensitizer, as taught by J '241 in analogous compositions, in the compositions disclosed by EP '049. EP '049 provides motivation by teaching compositions comprising a photocurable substance. J '241 provides motivation by teaching analogous compositions comprising the same kinds of photocurable substances.

### *Conclusion*

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Susan W Berman whose telephone number is 571 272 1067. The examiner can normally be reached on M-F 9:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck can be reached on 571 272 1078. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.



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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Susan W Berman  
Primary Examiner  
Art Unit 1711

SB  
4/22/2005